

Physicians who play Mozart while performing colonoscopy may improve adenoma detection rate

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Physicians who listen to Mozart while performing colonoscopy may increase their detection rates of precancerous polyps, according to the results of a new study unveiled today at the American College of Gastroenterology's (ACG) 76th Annual Scientific meeting in Washington, DC.

The study, "The 'Mozart Effect' and Adenoma Detection," by Catherine Noelle O'Shea, DO and David Wolf, MD, of the University of Texas Health Science Center at Houston, found adenoma detection rate—the proportion of patients undergoing screening colonoscopy in whom an adenomatous polyp is found and an important measure of a high quality endoscopic exam --increased from baseline values with music compared to without for two endoscopists whose baseline adenoma detection rates were calculated over a one-year period prior to the start of the study. The "[Mozart Effect](#)" refers to a set of research results that found listening to Mozart's music may result in significant short-term improvement in spatial temporal reasoning. Researchers used this previous theory to determine whether or not listening to Mozart while performing a colonoscopy had any impact on an endoscopist's adenoma detection rate.

In this randomized controlled trial, two endoscopists each with experience completing at least 1000 colonoscopies performed screening colonoscopies randomly assigned to music -- where Mozart was played -- or no music. Each endoscopist was unblinded to music exposure.

Adenoma detection rates from this study were than calculated and compared to the baseline rates.

"Both endoscopists had higher adenoma detection rates listening to music when compared with their baseline rates," said lead researcher Dr. O'Shea.

Endoscopist #1, who was blinded to outcome, had an adenoma detection rate of 66.7 percent listening to Mozart and 30.4 percent without the music. Endoscopist #2, who was unblinded to the outcome, had an adenoma detection rate of 36.7 percent with Mozart and 40.5 percent without the [music](#). Baseline detection rates were 21.25 percent (Endoscopist #1) and 27.16 percent (Endoscopist #2).

Adenomas are a type of colon polyp that is considered a precursor for invasive colorectal cancer (CRC), which is the third most common cancer diagnosed in men and women in the United States and the second leading cause of cancer death when both sexes are combined. According to the American Cancer Society, 102,900 new cases of colon cancer (49,470 in men and 53,430 in women) were diagnosed in the United States in 2010.

"Adenoma detection rate is linked to a reduction in colorectal cancer incidence so it is an important quality indicator for colonoscopy," said Dr. O'Shea. "Anything we can do get those rates up has the potential to save lives. While this is a small study, the results highlight how thinking outside the box -- in this case using Mozart -- to improve adenoma detection rates can potentially prove valuable to [physicians](#) and patients."

A study published last May in The New England Journal of Medicine found that adenoma detection rate is an independent predictor of the risk of interval colorectal cancer after screening colonoscopy -- data from the study showed that when endoscopists frequently find polyps during their

exams, there are fewer interval cancers diagnosed between tests. When that rate falls below 20 percent, the risk of colorectal cancer being diagnosed within the next five years goes up significantly. When the rate was below 11 percent, the risk of an interval cancer was more than 10 times higher than when adenomas were found more than 20 percent of the time.

When detected early, polyps can be removed during a colonoscopy exam, preventing the development of colorectal cancer. This ability to prevent colorectal cancer through polyp removal is the cornerstone of the American College of Gastroenterology's 2009 screening guideline which recommends [colonoscopy](#) as a "preferred" colorectal cancer prevention strategy.

A tremendous body of evidence shows that clearing the colon of polyps, including small polyps, significantly reduces colorectal cancer mortality. When detected in its earliest and most treatable stage, the survival rates for colorectal [cancer](#) exceed 90 percent.

Provided by American College of Gastroenterology

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